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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,294	12/17/2001	Donald Norman Spitz	2001-0617.00	7667

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EXAMINER

LIANG, LEONARD S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,294

Applicant(s)

SPITZ ET AL

Examiner

Leonard S Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

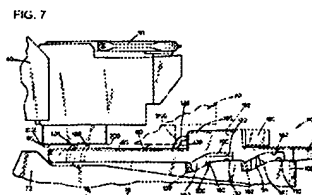
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1, 11, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al (US Pat 6402290).

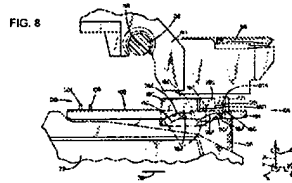
Johnson et al discloses:

- {claims 1 and 22} A maintenance station for a printer (column 1, lines 8-15); a fixed support housing (figure 7, reference 102);

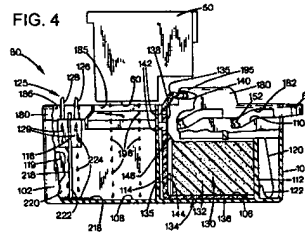


a sled (figure 7-8, reference 150);

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a spit containment device (figure 2, 4, 8, reference 108)



- {claim 11} ink jet printer (column 1, lines 8-15); printhead (figure 4, reference 60); maintenance station (as taught in claim 1)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-10, 12-20, 23-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (US Pat 6402290) in view of Lou et al (US Pat 5997128).

Johnson et al discloses:

- {claims 1 and 22} a maintenance station (as taught in claims 1 and 22 above)
- {claim 11} ink jet printer (as taught in claim 11 above)
- {claims 3, 13, and 24} support housing is coupled to the spit containment device (figure 4, reference 102, 108)

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- {claims 4, 14, and 25} the coupling of the support housing to the spit containment device prevents the spit containment device from moving in the vertical direction relative to the support housing (figure 4, reference 102, 108)
- {claims 5, 15, and 26} the support housing includes at least one substantially horizontal slot (figure 8, reference 108)
- {claims 6, 16, and 27} the slot is substantially parallel to the horizontal direction (figure 8, reference 78, 182)
- {claims 7, 17, and 28} the sled includes an opening (figure 8, reference 182), the spit containment device being received in the opening (figure 8, reference 108, 182)
- {claims 8, 18, and 29} the opening includes at least one substantially vertical slot (figure 8, reference 108; slot indicated by reference 108 has both substantially horizontal, as well as substantially vertical portions)
- {claims 9, 19, and 30} printhead cap (figure 8, reference 170); printhead wiper (figure 8, reference 126, 128)
- {claims 10, 20, and 31} the spit containment device is disposed adjacent to a printhead wiper (figure 4, 8, reference 108, 126, 128)
- {claim 11} ink jet printer (column 1, lines 8-15); printhead (figure 4, reference 60); maintenance station (as taught in claim 1)

Johnson et al differs from the claimed invention in that it does not disclose:

- {claims 2-5, 7-8, 10, 12-15, 17-18, 20, 23-26, 28-29, 31} the spit containment device comprises a chimney
- {claims 5, 15, and 26} the spit containment device having at least one projection received in the at least one slot
- {claims 8, 18, and 29} the spit containment device having at least one substantially vertical rib (figure 8, reference 152), the rib being received in the vertical slot (figure 8)

Lou et al discloses:

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- {claims 2-5, 7-8, 10, 12-15, 17-18, 20, 23-26, 28-29, 31} the spit containment device comprises a chimney (column 2, lines 6-10)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the chimney disclosed by Lou et al into the invention of Johnson et al. The motivation for the skilled artisan in doing so is to gain the benefit of collecting spit ink below other service station components (column 2, lines 6-10). The combination naturally suggests the chimney having at least one projection received in the at least one slot and the chimney having at least one substantially vertical rib, the rib being received in a corresponding vertical slot (The spittoon opening 108 disclosed in Johnson et al figure 8 can be considered a slot, and thus the chimney disclosed by Lou et al that is inserted into the flat spittoon opening could be considered the projection or rib that is received by the slot).

3. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (US Pat 6402290) in view of Lou et al (US Pat 5997128), as applied to claim 12 above, and further in view of Vega et al (US Pgpub 20020158941).

Johnson et al in view of Lou et al differs from the claimed invention in that it does not disclose that a gap between the chimney and the printhead is not greater than approximately 1.0 mm when the chimney receives the ink spit from the printhead.

Vega et al discloses, with respect to claim 21, reducing spitting distance to 1.0 mm (page 4, column 1, paragraph 56; page 5, column 1, paragraph 56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Vega et al into the invention of Johnson et al in view of Lou et al so that the spitting distance is reduced to 1.0 mm. The motivation for the skilled artisan in doing so is to gain the benefit of efficiently reducing aerosol effect (page 5, column 1, paragraph 5). The combination naturally suggests that a gap can be configured between the chimney and the printhead so that it is not greater than approximately 1.0 mm when the chimney receives the ink spit from the printhead.

Response to Arguments

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4. Applicant's arguments filed on 05/15/03 have been fully considered but they are not persuasive.

With regards to claim 1, the applicant argues that the spittoon chamber is horizontally movable in response to the movement of the pallet disclosed by Johnson et al, and not the sled, as claimed. However, the examiner notes that the movement of the pallet is dependent upon the movement of the sled. For example, when the sled enters a capping mode, the pallet moves in one direction, and when the cap is released, the pallet moves in another direction. Since the movement of the spit containment device is dependent on the movement of the pallet, it can also be considered that the movement of the pallet is dependent on the movement of the sled. Nowhere in the claimed invention does it specify that the spit containment device must be in **direct** contact with the sled. The applicant also argues that base 102 cannot be considered a fixed support housing since it is found on a movable pallet. The examiner believes that the applicant is trying to narrowly define the word "fixed". Being fixed is not the same thing as being unmoving. The word fixed could relate to a number of things, such as the shape of the housing not changing. Furthermore, the claimed invention only discloses a fixed support housing, but there is no mention of what the housing is fixed in relation to. Though there is a movable pallet 72, the base 102 can be seen to be fixed in regards to the pallet. The fact that the pallet moves does not alter the fact that the base 102 is fixed in size, shape, and movement capability in regards to it. It is further seen that this base 102 does provide support for the sled.

With regards to claims 5, 8, 15, 18, 26, and 29 the examiner agrees with the applicant's argument that the previously cited interpretation of the claimed invention was not completely accurate. However, the examiner maintains that the previously cited art of Johnson et al in view of Lou et al still reads on the claimed invention, though a different, but still legitimate, interpretation of the claimed invention is used (as shown in the rejection above). In this interpretation, the spittoon 108 is viewed as the slot, and the chimney that Lou introduces serves as the projection/rib being received by the existing slot. The broad claims would also allow ink drops to be viewed as a projection received by the spittoon slot (though this interpretation was not used in the above rejection).

With regards to claim 21, the examiner maintains that it would be proper to combine the teachings of Vega et al into the invention of Johnson et al in view of Lou et al. Vega et al

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teaches spitting into a spittoon, while Lou et al teaches using a chimney as a spittoon. All three references deal with spitting into a spittoon. Vega et al is not required to disclose a chimney; it is simply used to teach a spitting distance of 1.0 mm from the printhead to the spittoon (in whatever form it may take). The cited motivation is thus deemed to be proper.

All other arguments are based on the above arguments, and have thus, now been responded to.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S Liang whose telephone number is (703) 305-4754. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (703) 308-4896. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

lsl LSL
July 25, 2003



Stephen D. Meier
Primary Examiner